

OTAKE -- 10/649,607  
Client/Matter: 041535-0305539

REMARKS

Claims 1-4 are pending. By this Amendment, claim 1 is amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claims 1-4 were rejected under 35 U.S.C. § 103(a) over Farrell (U.S. Patent No. 5,143,433) in view of Turnbull (U.S. Patent 5,803,579). The rejection is respectfully traversed.

Claim 1 recites a backlight device for lighting a liquid crystal display device. The backlight device includes self-luminous sources in primary colors of red, green, and blue. The three primary colors from the self-luminous sources are mixed and synthesized into white light. The backlight device include a light-conducting plate and/or a light-scattering plate. The self-luminous sources of the three primary colors are illuminated sequentially at different timings for each color and so that the self-luminous sources periodically illuminate in sequence by a switching operation. The light-generating timings for every two of the self-luminous sources partially overlap, which achieves time-division light-emission.

MPEP § 2143 states: "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

Prior to addressing the rejection, Applicant respectfully requests that the Examiner clarify the interpretation of Farrell. In particular, on page 2, the Examiner alleges that Farrell discloses a light conducting plate 20 and in column 5, lines 12-30, teaches that the primary colors are illuminated sequentially at different timings for each color thereby achieving time division light emission. The Examiner, however, on page 3, lines 5-6, acknowledges that Farrell does not disclose the light emitting device illuminating sequentially at different timings for each color.

It is respectfully submitted that neither Farrell nor Turnbull et al. disclose or suggest the self-luminous sources of the three primary colors illuminating sequentially at timings for each color, as recited in claim 1. Accordingly, as both references fail to disclose or suggest this feature, it is respectfully submitted that the combination of Farrell of Turnbull et al. fails to present a *prima facie* case of obviousness.

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Farrell discloses a night vision backlight system for liquid crystal displays having primary fluorescent tubes 18, a reflecting surface 20 and a diffuser plate 16. The primary fluorescent tubes 18 are turned on in the day time and secondary fluorescent tubes 37 are turned on for use in dark, night time conditions where viewing of the display is desired utilizing electronic night vision equipment. As disclosed in column 5, lines 12-30, of Farrell, the intensity and light balance of the low-level light is controlled by the choice of a filter 39 and by adjustment of the power to the secondary fluorescent tubes 37. There is no disclosure or suggestion, however, of sequentially illuminating either the primary fluorescent tubes 18 or the secondary fluorescent tubes 37.

The Examiner, on page 3, lines 7-10, of the Office Action alleges that Turnbull et al. disclose an illuminator assembly having a red, green, and blue light emitting diodes 14 or 16 and that column 21 teaches that two light emitting diodes can individually be connected to an electronic device 22 to illuminate white light. It is respectfully noted, however, that the Examiner does not allege that Turnbull et al. discloses or suggests sequentially illuminating self-luminous sources of the three primary colors. It is respectfully submitted that Turnbull et al. do not disclose or suggest this feature.

As disclosed in column 11, lines 40-48, of Turnbull et al., the electronic control circuit 22 is known to those of ordinary skill in the art and may vary depending on the application for the illuminator 10. For example, the electronic control circuit 22 for a flashlight may simply be an ON-OFF switch, a battery and a resistor in series with the LEDs 14 and the support member 12. As disclosed in column 21 of Turnbull et al., the complementary combination of light from a plurality of LEDs of two different types having peak wave lengths of 592 nm and 488 nm and perceived hues of amber and blue-green, respectively, may be such that the light from the two types of LEDs overlap and mix with sufficient intensity and appropriate proportion to be an effective illuminator projecting white light. As further disclosed in column 21, lines 48-53, since LEDs are solid-state devices comprising a base semiconductor material and one or more dopants which impact the spectral emission characteristics of the LED, the level of doping and other process parameters can be adjusted to intentionally modify the peak wavelength emitted by the LED.

There is no disclosure or suggestion by Turnbull et al. of self-luminous sources of the three primary colors illuminating sequentially at different timings for each color so that the self-luminous sources periodically illuminate in sequence by a switching operation and the light generating timings for every two self-luminous sources partially overlap. As discussed

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above, Turnbull et al. disclose adjusting the emission characteristics of the LEDs by adjusting the level of doping and other process parameters, but do not disclose or suggest illuminating LEDs sequentially.

As neither Farrell nor Turnbull et al. disclose or suggest self-luminous sources of the three primary colors being illuminated sequentially at different timings for each color, the combination of Farrell and Turnbull et al. fails to include all the limitations of claim 1 and fails to present a *prima facie* case of obviousness.

Claims 2-4 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 1 and for the additional features recited therein.

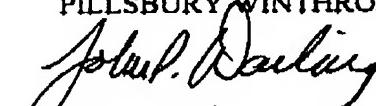
Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) over Farrell in view of Turnbull et al. are respectfully requested.

It is respectfully submitted that the application is in condition for allowance. Should further issues require resolution prior to allowance, the Examiner is requested to telephone the undersigned at the number below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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